

9fXVYYfYb`Z0f`i bhYf`nk Y]`9i fc.`9]b DfY]gk i bXYf`]b`7cVi f[°

⊕`7cVi f[`k YfXYb`9fXVYYfYb`U_hi Y``i bhYf`nk Y]`9i fc
Ub[YVchYbžhfchn`ghY][YbXYf`DfY]gY`i bX`9fbhYdfcV`Ya Yb`]b
8Yi hgW`UbX"



7cVi f[ž`8Yi hgW`UbX`!`⊕`XYb`YhnhYb`HU[Yb`\UVYb`X]Y
9fXVYYfdY]gY`]b`XYb`8]gWci bhYfb`Z0f`5i ZfY[i b[`[Ygcf[h`⊕
Y]bYa`7cVi f[Yf`8]gWci bhYf`k i fXYb`9fXVYYfYb`Z0f`i bhYf`nk Y]
9i fc`Ub[YVchYbžk Ug`X]Y`J YfVUi WYf`↑ VY`b`"Äggh"`Ni`6Y[]bb
XYf`GU]gcb`U[Yb`X]Y`DfY]gY`ØVYffUgWYbX`\cWž`XcW`_i fn`j cf
@JXYbgW`i gg`Z]Y`XYf`5_h]cbgdfY]g`j cb`&ž(-`9i fc`fUgW`Ui Z`%ž&
9i fc`"8]Yg`k]fZh: fU[Yb`Ui Z`K`]Y`_Ubb`Yg`ni`gc`WYb
8i a d]b[dfY]gYb`_ca`a Yb3`bd!WcVi f["XY`VYf]W`hYhž`XUgg`gY]h
&\$%(`X]Y`DfY]gY`Z0f`9fXVYYfYb`]b`8Yi hgW`UbX`i a`a Y`f`U`g`, \$
DfcnYbh`[Ygh]Y[Yb`g]bXž`k Ug`XYb`U_hi Y`Yb`5b[YVchgdY]g`bcW
ØVYffUgWYbXYf`YfgWY]bYb`"Äggh"

K]Y`g]Y`h`Yg`UVYf`]a`J Yf[`Y]W`a`]h`XYb`YhnhYb`K`cWYb`Ui`g3`8]Y

DfY]gY`ZØf`9fXVYYfYb`gWk Ub`_Yb`Yf\YV`]Wk`i bX`U[Yb`9bXY`5df`
i bX`5bZUb[`A U]`VY]`Xi fWk`gWb]h]Wk` , ž%-`9i fc`dfc`?]`cžk Ug`Yhk U
(ž%\$`9i fc`ZØf`Y]bY`) \$!; fUa a`!GWk`U`Y`Yb`hgd]Wk`h`5_hi`Y`ghY`h
XYf`B]YXf][fY`_cfX`j cb`DfY]gYb`i bhYf`nk`Y]`9i fc`dfc`?]`c`Ui`Z`XYf
HU[Ygc`fXbi b[ž`XU`X]Y`5bV]YhYf`j Yfgi`W`Ybž`Xi fWk`[Øbgh][Y
5_h]cbYb`?i bXYb`ni`[Yk`]bbYb`"Vf`"XY`nY][h`Ui`Z`XUgg
K`YhhYfVYX]b[i b[Yb`i bX`X]Y`XUa`]hj`YfVi bXYbY`9fbhYnY]h`Y]bYb
g][b]Z]_UbhYb`9]bZi`gg`Ui`Z`X]Y`DfY]g[YghU`hi b[`UVYb`"

8]Y`F`c`Y`XYg`K`YhhYfg`i`bX`XYf`9fbhY

⇒ J`cfZY`X`XYf`DZ]b[ghZY]YfhU[Y`gc`f[hY`Y]bY`D\UgY`j cb`ZUgh
Y]bY]b`U`V`K`c`W`Yb`F`Y[Yb`ZØf`Y]bYb`XYi`h]W`Yb`5bgh]Y[`XYg
5b[YV`chg`"8]Yg`ZØ\`fhY`nk`Uf`ni`Y]bYa` `Ø\YfYb`J`c`ffU`h`Ub
9fXVYYfYbž`\UhhY`UVYf`Y]bYb`B`UW`hY]`."8]Y` : fØW`hY`k`i`fXYb`Xi`fWk
X]Y` : Yi`W`h][`_Y]h`k`Y]W`Yf`i`bX`gca`]h`k`Yb][`Yf`\`U`h`Uf`"J`YfV`Ui`W`Yf
a`ØggYb`VYfY]h`gY]bž`gW`bY`ni`_`Ui`Z`Ybž`XYb`b`X]Y`<`U`h`V`Uf`_Y]h`XYf
gW`cb`gY`f`[`YZfU[`hYb`6`YfYb`]gh`VY[`fYb`nhž`k`Ug`k`]YXYfi`a`ni`XYb
gW`bY`Yb`J`Yf`_`Ai`Z`Yb`i`bX`XYb`b]YXf][`Yb`DfY]gYb`ZØ\`fh`"8]YgY
9]bgW`Å`hni`b[`hY]`h`Ui`W`"hU[`YggW`Ui`"XY`ž`k`c`j`cb`XYf
B`c`h`k`Y`b`X][`_Y]h`VYf]W`hY`h`k`]fX`ž`X]Y`Ya`d]b`X`]W`Yb`9fXVYYfYb
gW`bY`ni`j`Yfa`Uf`_`hYb`"

8`YfnY]h`g]bX`VYfY]hg`nk`Y]`8`f]hhY`XYf`9fXVYYfZY`XYf`]b
8`Yi`hgW`Ub`X`UV[`YYfb`hYh`"8]Yg`ZØ\`fh`X`Uni`ž`X`Ugg`X`Ug`5`b[`YV`c`h`Ub
Y]b`Y]a`]gW`Yb`9fXVYYfYb`_`Y]bYf`k`]fX`ž`k`Å`\`fYb`X`X]Y`B`UW`ZfU[`Y
k`Y]hYf\]b`\`c`W`V`Y]Vh`"9fXVYYfYb`[`Y`hYb`U`g`X]Y`VY`]YV`hY`ghY
 : fi`W`h]b`8`Yi`hgW`Ub`X`i`bX`X]Y`J`YfV`Ub`X`gj`Y`fhY`hYf`fY`W`bYb`a`]h
Y]bYf`GhUV]`]g]Yfi`b[`XYf`A`Uf`_`hd`fY]gY`"8`c`W`X]Y`gY`GhUV]`]g]Yfi`b[
`Ø`bb`hY`bi`f`j`cb``i`fnYf`8`Ui`Yf`gY]bž`X`U`Ui`Z[`fi`bX`XYf
k`]hhYfi`b[`gVYX]b[`hYb`9]bgW`f`Å`b`_`i`b[`Yb`]b`XYf`9fbhY`Y]b
DfY]gUbgh]Y[`Yfk`UfhY`h`k`]fX`"8]Y`<`Ui`d`hd`Z`Ø`W`_`nY]h`bY][`h`g]W`X`Y`a
9bXY`ni`ž`k`Ug`X]Y`DfY]gY`]b`XYf`nk`Y]hYb`ž`b]\`Å`Z`hY`k`]YXYf`ghY][`Yb
`UggYb`_`Ø`bb`hY`"

DfY]ghfYbXg`i`bX`5`i`gV`]W`_

8`Yf`Xi`fWk`gW`b]h]W`Y`DfY]g`ZØf`Y]b`?]`c[`fUa`a`XYi`hgW`Y

9fXVYYfYb`Y[h'a ca YbhUb`VY]`Yhk U') ž +`9i fcž`k Ug`XYi h`]W
i bhYf`XYb`DfY]gYb`XYf`YhnhYb`A cbUhY`]gh"6i bXYgk Y]h`g]bX`]b
FY[]cbYb`k]Y`6UXYb!K ØfhYa VYf[ž`F`Y]b`UbX!DZU`n`i bX`6UmYfb
VYfY]hg`Yhk U'+`\$`DfcnYbh`XYf`Bcfa U`_i`hi`f`[YYfbhYhž`k Å`fYbX`Yg
]a`BcfXYb`8Yi hgW`UbXg`XYi h`]W`Ub[gUa Yf`j cfUb[Y`hž`k c`bi f
fi bX`&\$`DfcnYbh`XYf`9fbhY`UV[YgW`cggYb`g]bX"8Y
k]hYfi b[gUV`Åb[]Y`B Uhi`f`XYg`9fXVYYfUbVUi`g`nY][h`g]W`_`Uf.
: fY]`UbXk UfY`Y]XYhi bhYf`fUi YfYb`6YX]b[i b[Ybž`k Å`fYbX
Hi bbY`k UfY]b`XYf`FY[Y`ei U`]hUh]j` \`Ö`Yfk Yfh][`i bX`Åb[Yf
\U`hVUf`]gh"8Y]g`U`Yg`VYY]bZi`ggh`bUhØf`]W`Ui`W`X]Y`DfY]gYž`X]Y`]b
XYb`YhnhYb`Å`fYb`Xi`fW`: U`hc`fYb`k]Y`XYb`A]bXYgh`c`b
ni`gÅ`h`]W`[Ygh]Y[Yb`g]bX" hU[YggW`Ui`"XY`j`Yfk`Y]gh`XUfUi`Zž`XUgg
X]Y`NU`X`XYf`9fXVYYfVYhf]YVY]b`8Yi hgW`UbX`]a`YhnhYb`Å`f`i`a
+ž)`DfcnYbhini`fØW`[Y[Ub[Yb`]gh"

8]Y`9fXVYYfgU]gcb`Å`h`gca`]h`ZØf`<`ÅbX`Yf`i`bX`J`YfVfUi`W`Yf`]\`fY
,`VYffUgW`i`b[Yb`dUfUh"K`Å`fYbX`g]W`j`]Y`Y`VYfY]hg`ØVYf`X]Y
U`hi`Y`Yb`GW`b`AddW`Yb`ZfYi`Ybž`V`Y]Vhni`VYcVUW`hYbž`k`]Y`g]W
X]Y`DfY]gY]b`XYb`_ca`a`YbXYb`K`cW`Yb`Ybhk`]W`_Y`b`k`YfXYb"9]bYg
]gh`g]W`Yf.`8]Y`B`UW`ZfU[Y`V`Y]Vh`cW`ž`i`bX`X]Y`9fXVYYfgU]gcb`Å`Uh
bcW`Y]b][Y`K`YbXi`b[Yb`]b`dYhnc"

8YhU]`g	
C fh	7cVi f[ž`8Yi hgW`UbX
E i Y`Yb	<ul style="list-style-type: none"> • k k k "bd!WcVi f["XY • k k k "Vf"XY • k k k "hU[YggW`Ui`"XY

6Ygi W`Yb`G]Y`i`bg`Ui`Z`b!U["XY